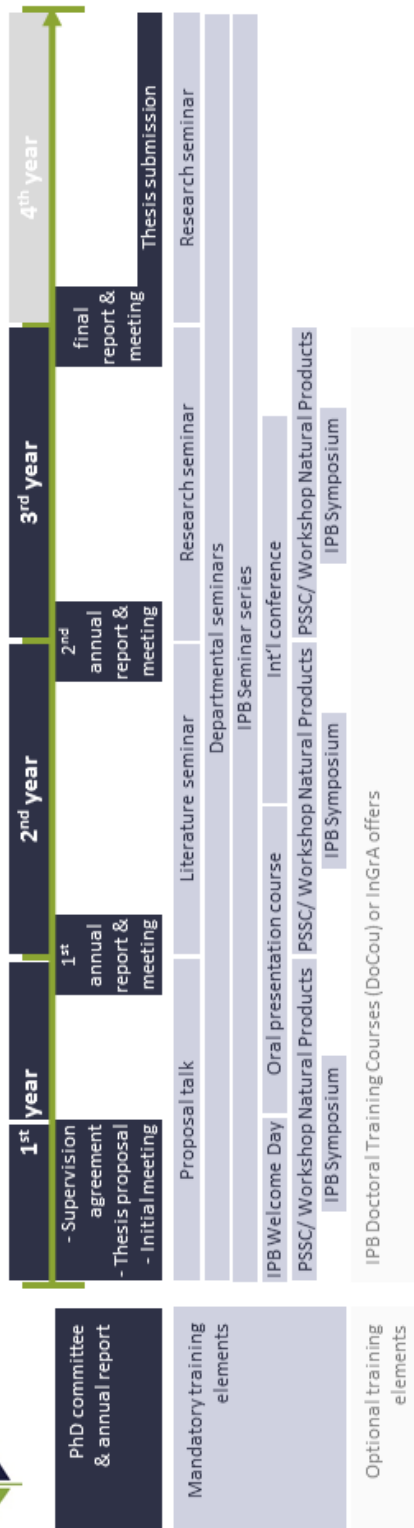


Leibniz Research School PlantBioChem

Program

In addition to the core doctoral training program, most doctoral candidates at the Leibniz Institute of Plant Biochemistry (IPB) participate in optional (but recommended) qualification and academic activities offered by the **Leibniz Research School *PlantBioChem***, which is embedded in the [International Graduate Academy \(InGrA\)](#) of the Martin Luther University Halle-Wittenberg (MLU). InGrA supports and coordinates various structured doctoral training programs, offers additional soft skill courses and valuable networking opportunities both within the field of research and across disciplines. Successful completion of this Program will be documented in the Record Book (using the [European Credit Point System](#)) and honored by awarding the LRS *PlantBioChem* Certificate.

Leibniz Research School *PlantBioChem*



1. Thesis Committee

Every doctoral candidate taking part in the LRS *PlantBioChem* benefits from supervision by a Thesis Committee. The Thesis Committee monitors the progress of and advises the student on their doctoral research project to ensure a high scientific quality as well as a timely and successful completion of the dissertation in **three to four years**.

The Thesis Committee approves of the initial **Thesis Proposal** (see 4.1). During annual meetings, it provides feedback on results and adjusts the research plan. Furthermore, members of the Thesis Committee advise the doctoral candidate on their LRS training program, additional optional training, and career planning. The members of the Thesis Committee are jointly chosen by the doctoral student in consultation with the Primary Supervisor who is either the Academic Supervisor (department head) or Research Supervisor (group or project leader). A Thesis Committee must consist of a minimum of three (up to five) members; at least one should be affiliated with a different IPB department or with an external research institution. Thesis Committee:

- Academic Supervisor (IPB Department Head/Adjunct MLU Professor)
- Research Supervisor (supervising IPB Group/Project Leader)
- Co-supervisor or Mentor

2. Record Book

Doctoral candidates of the LRS *PlantBioChem* are responsible to keep a [Record Book](#) which details requirements of the Thesis Proposal, annual reports, and target agreements and written feedback of the Thesis Committee meetings. Furthermore, the candidate uses the Record Book to document attendance at seminars, conferences, workshops, and courses (signatures of hosts or organizers, certificates of attendance).

3. IPB Welcome & Orientation Day

The bi-annual *IPB Welcome & Orientation Day* introduces new doctoral students and IPB employees to the essentials of working at the institute. Sessions include a seminar on [Good Scientific Practice](#), as well as a presentation of the IPB and its platforms, databases, tools, and research expertise. It is mandatory for every doctoral student to attend the next *IPB Welcome & Orientation Day* following the start date of their doctoral contract at the IPB.

4. Mandatory Training Elements

The main focus of the doctoral candidate's work is to plan, structure and execute experimental thesis research and to timely deliver and defend the dissertation.

In addition to the doctoral research and dissertation, the doctoral candidate must complete the following mandatory requirements to be eligible for the LRS *PlantBioChem* Certificate.

1. Attendance at the [IPB Welcome & Orientation Day](#) within the first 6 months at the IPB, including the seminar on [Good Scientific Practice](#) *
2. **IPB Supervision Agreement** between the doctoral candidate and the Thesis Committee (supervisors and mentors) or equivalent agreement of external doctoral program *
3. Annual presentations and regular (weekly) attendance at the **IPB Research & Literature Seminar Series** (see 4.2 and 4.3) *
4. Regular participation in **departmental activities** (e.g., seminars/progress reports/research discussion) *
5. Regular participation in the **IPB Retreat** *
6. Regular attendance at the [IPB Seminar Series](#) (external speakers; see 4.3)
7. Attendance at the annual [Leibniz Plant Biochemistry Symposium](#) (see 4.3)
8. Active participation (poster or talk) in the annual [Plant Science Student Conference \(PSSC\)](#) (see 4.4) and/or the **PhD Workshop on Natural Products**
9. Poster/talk presentation at an **international conference** (see 4.4)
10. Participation in an **oral presentation and communication course**

* Irrespective of the enrollment in a structured doctoral program (e.g., CRCs, RTGs, yDiv, etc.), these elements (1. to 5.) are mandatory for all doctoral candidates at the IPB.

4.1. Thesis Proposal, Annual Reports, Thesis Committee Meetings

Within the first 3 months, each doctoral student must develop a **Thesis Proposal** in close consultation with their Primary Supervisor and Thesis Committee (5 pages max.). The written proposal is an obligatory target agreement between the doctoral student and their Thesis Committee. It includes:

- Topic and scope of the dissertation
- Well-referenced state of research
- Goals, hypothesis, methods
- Time table

The doctoral candidate must present the Thesis Proposal in the *IPB Research & Literature Seminar* series (first year presentation). Every year, the doctoral student must summarize the research progress in a written report (approx. 3 pages excl. figures) for discussion in the Thesis Committee meeting** in light of the original proposal, previous committee meetings and target agreements. **The committee's written feedback and recommendations, as well as target agreements must be recorded in the [Record Book](#).**

**Practically, the committee meeting can be held after the doctoral student presented their research progress at an institute or departmental seminar. Alternatively, a separate presentation to and discussion with the committee can be scheduled.

4.2. Presentations at Seminars

To train presentation skills and to receive valuable input from IPB scientists with a broad range of expertise and experience, every doctoral student must actively participate in the seminars offered by the IPB and by their IPB home department.

Once a year, every doctoral student will be scheduled to present in the **IPB Research & Literature Seminar Series**:

- 1st year: Thesis Proposal presentation
- 2nd year: Literature Seminar (mini lecture-style)
- 3rd year: Research Seminar
- (4th year: Research Seminar)

The **Literature Seminar** is an opportunity for doctoral students to present an original key publication in the context of its research area. Selection criteria for publications:

- Original research article in a high-profile journal (e.g., Nature, Science, Cell, EMBO, PNAS, Plant Cell, Angew. Chemie, Chem. Com., Chem. Bio. Chem., J. Med. Chem.)
- not older than one year
- not directly related to the doctoral student's own research work, but of high relevance and interest to a broader IPB audience

The choice of subject is not restricted. The selected publication must be announced to [Prof. Dr. Bettina Hause](#) one week in advance the latest. The doctoral students should present the publication lecture-style, which requires a broader introduction based on background reading of relevant reviews and closely related original publications.

The **Research Seminar** is a platform for doctoral students to present their progress and current results to a larger IPB audience, which is not open to the public (except for external Thesis Committee members). Presentations should not be longer than 25 minutes. Talks and discussions are in English.

The IPB Research & Literature Seminars are typically followed by a brief assessment/discussion of the presentations by the doctoral students and attendance will be recorded. In coordination with the doctoral student representatives, the after-seminar-discussion also provides an opportunity to talk about topics that affect all doctoral students and require general discussion.

4.3. Attendance at Seminars and Symposia

To broaden their knowledge and practice scientific discourse, doctoral students at the IPB are expected to regularly attend the

- *IPB Research & Literature Seminar Series* (Wednesdays 9 a.m.),
- [IPB-Seminar Series](#) (usually Thursdays 4 p.m.),
- and the yearly [Leibniz Plant Biochemistry Symposium](#).

4.4. Conference Participation

It is mandatory for doctoral candidates to actively participate (poster or talk) at least twice in the annual [Plant Science Student Conference \(PSSC\)](#) or the PhD Workshop on Natural Products. The PSSC is alternately held at the IPB (odd-numbered years) or IPK Gatersleben (even-numbered years). Students should attend the PSSC at least once at either location.

The doctoral candidate is afforded the opportunity to participate in at least one **international conference**. For conference participation to be accredited in the Record Book, the student must present a poster or give a talk and provide a certificate of attendance.

Additional conference/workshop participation can be awarded [credit points](#) if at least a poster is presented. The same presentation at different meetings will not be acknowledged. The student is responsible to provide a certificate of attendance and proof of the poster/talk.

4.5. Oral Presentation and Communication Course

Once per year, the IPB offers (or financially supports) in-house a mandatory soft skill course on oral presentation (organized by doctoral representatives).

Alternatively, oral presentation courses offered by InGrA or other services may be attended, but will not be covered by the IPB. As for all external courses (see 5.), the doctoral student must provide a certificate of attendance and information on the scope and duration of the course for credit points to be earned.

5. Optional Training Elements

In addition to the mandatory program, the LRS *PlantBioChem* offers optional training for professional as well as personal development. It is recommended to take part in a number of the following elements which will be accredited with [credit points](#) as well as on the LRS certificate.

- Scientific activities (e.g., active workshop attendance, review writing)
- Teaching activities (BSc, MSc, lab class supervision)
- Organizational activities (e.g., PSSC organizational tasks, PhD representative)
- Scientific and technical as well as non-scientific (soft skills) courses (see [in-house doctoral training courses 'DoCou'](#) and [InGrA schedule](#))***)

*** In-house courses are primarily available to participants of the LRS *PlantBioChem*. IPB doctoral students not enrolled in a structured graduate program can take part in courses when free places are available. For outside courses to be accredited in the Record Book, the doctoral student has to provide a certificate of attendance and information on the scope and duration of the course.

6. Credit Points

Progress of the doctoral training program will be recorded in credit points based on the [ECTS](#) awarded for mandatory elements and optional training and activities (see table below).

1 CP = 25 hours (following ECTS)

1 hour = 0,04 CP

1 day = 8 hours

Program	Workload (hrs)	CP	Description	CP total
Mandatory Training Elements				
Welcome Day (Intro to IPB, Good Scientific Practice Seminar)	5	0,2	first year	0,2
Research proposal & first doctoral committee meeting	80	3,2	first year	3,2
Written annual report & doctoral committee meeting	40	1,6	yearly from second year on	4,8
Literature and Research Seminar presentation (Wednesday)	40	1,6	yearly	6,4
Literature and Research Seminar attendance (Wednesday)	1	0,04	weekly (10 months=40 hrs*min 75% attendance)	1,6
IPB-Seminar (Thursday)	1	0,04	weekly (10 months=40 hrs*min 50% attendance)	1,6
PSSC or PhD workshop on Natural Products attendance (poster/talk)	25	1	yearly	3
Leibniz Plant Biochemistry Symposium	10	0,4	yearly	1,2
International conference (poster/talk)	20	0,8	at least once in 4 years	0,8
Oral presentation and communication course	hour-based	≥0,2	during first or second year	0,2
total in 4 years				23
Optional Training Elements				
Scientific exposure				
Poster at conference/meeting	15	0,6		0,6
Talk at conference/meeting	15	0,6		0,6
Writing a publication (review/book chapter/original article)	80	3,2		3,2
Teaching				
BSc supervision	per person	2		2
MSc supervision	per person	3		3
Lab class supervision	per lab class day	0,4	1 day lab class=10 hrs of CP, taking into account preparations	0,4
Organizational				
PSSC Organizational Task	1 month	6,4	max twice during the doctoral program	6,4
Volunteering as a Doctoral representative	hour-based	4	max twice during the doctoral program	4
Science Communication (e.g., Long Night of Science)	hour-based			
Courses				
In-depth studies (e.g., summer school, hard skill courses)	hour-based		max 27 sessions*2 hours=54 hours	2,16
Personal development (e.g., soft skill courses)	hour-based		max 3 half days*4 hours=12 hours	0,48
max total in 4 years				22,84
minimum required CP from optional training elements				7
minimum required total CP in 4 years				30

7. LRS *PlantBioChem* Certificate

Doctoral candidates that have acquired the minimum number of credit points per year and successfully defended their dissertation thesis will be awarded a certificate, which testifies the successful completion of the structured doctoral program **LRS *PlantBioChem*** and lists the mandatory and additional training elements as well as credit points earned.